

### REMARKS

Claims 1-22 are pending in the application. New claims 21 and 22 have been added.  
Claims 13-20 have been withdrawn from consideration.

#### Claims and Specification

Minor changes have been made to the specification and claims to place them in better form for U.S. practice.

#### Claim Rejections – 35 U.S.C. § 102

(a) Claims 1, 2, and 5 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Koay et al. (US Patent Publication No. 2002/0047130A1). This rejection is respectfully traversed.

Koay discloses, in Fig. 2, an LED package 200 including a planar substrate 212 provided with a recess 222. The recess is formed by a circular floor 222 and a curved side wall 224<sup>1</sup>. As shown in Fig. 5, the recess (labeled “440” in Fig. 5) is formed by drilling an upper surface of a board by a cylindrically shaped drill bit 450 having a tapered or chamfered end.

Therefore, in Koay, the curved side wall 224 is not “mounted on said circuit board,” but is merely a part of the drilled surface of the board.

Moreover, the curved side wall 224 of Koay does not have “an opened rear thereof closed by said reflecting surface when mounted on said circuit board” because, as stated in the foregoing, the curved side wall 224 is formed by drilling the upper surface of the board.

---

<sup>1</sup> In page 2 of the Office Action, the Examiner alleges, in essence, that the curved side wall 224 of Koay is the same as the “reflector” recited in claim 1 of the present application.

Accordingly, Koay fails to disclose or suggest the “reflector” as recited in claim 1.

Claims 2 and 5, dependent on claim 1, are allowable at last for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claims 6 and 10 have been rejected under 35 U.S.C. § 102(b) as being anticipated by Reisenauer et al. (USP 6,161,910). This rejection is respectfully traversed.

Reisenauer discloses, in Figs. 1 and 2, a plurality of LEDs 20 mounted on an outward facing side 24 of an LED circuit board 22. Reisenauer states, in col. 3, lines 61-63, that a reflective white solder mask coating is preferably applied to the outward facing side 24, which contributes to the performance of the optical cavity. Reisenauer also discloses, in Fig. 3, an external cylinder 25 that appears to surround side portions of the LEDs 20 when mounted to a housing 16 that supports the LED circuit board 22.

The Examiner alleges in page 3 of the Office Action that the outward facing side 24 and the external cylinder 25 correspond to the “reflector” recited in claim 6 of the present application.

Applicants respectfully submit, however, that the “reflector” of the claimed invention has “an internal reflecting surface that surrounds the rear side and side surface side of said LED light source.”

In Reisenauer, although an inner surface of the external cylinder 25 may surround the side surfaces of the LEDs 20, but Reisenauer fails to disclose that the inner surface of the

external cylinder 25 is “an internal reflecting surface.” Accordingly, Reisenauer fails to disclose or suggest the “reflector” as recited in claim 6.

Claim 10, dependent on claim 6, is allowable at least for its dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

Claim Rejections – 35 U.S.C. § 103

(a) Claims 3, 4, 11, and 12 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Koay in view of Kitano et al. (US Patent Publication No. 2003/0216151A1). This rejection is respectfully traversed.

Claims 3, 4, 11, and 12, dependent on claim 1, are allowable at least for their dependency on claim 1.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(b) Claim 7 has been rejected under 35 U.S.C. § 103(a) as being unpatentable over Reisenauer in view of McDermott (USP 4,947,291). This rejection is respectfully traversed.

Claim 7, dependent on claim 6, is allowable at least for its dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

(c) Claims 8 and 9 have been rejected under 35 U.S.C. § 103(a) as being unpatentable over Reisenauer in view of Sommers (US Patent Publication No. 2003/0180037A1). This rejection is respectfully traversed.

Claims 8 and 9, dependent on claim 6, are allowable at least for their dependency on claim 6.

The Examiner is respectfully requested to reconsider and withdraw this rejection.

#### New Claims

New claims 21 and 22 have been added.

Claims 21 and 22, dependent on claim 1, are allowable at least for their dependency on claim 1.

A favorable determination and allowance of these new claims is earnestly solicited.

#### Conclusion

Accordingly, in view of the above amendments and remarks, reconsideration of the rejections and objections, and allowance of the pending claims are earnestly solicited.

Should there be any outstanding matters that need to be resolved in the present application, the Examiner is respectfully requested to contact Maki Hatsumi (#40,417) at the telephone number of the undersigned below, to conduct an interview in an effort to expedite prosecution in connection with the present application.

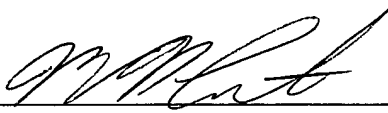
Application No.: 10/759,421  
Reply dated December 6, 2005  
to Office Action of September 6, 2005  
Page 17 of 17

Docket No.: 0879-0425P

If necessary, the Commissioner is hereby authorized in this, concurrent, and future replies, to charge payment or to credit any overpayment to Deposit Account No. 02-2448 for any additional fees required under 37 C.F.R. § 1.16 or under 37 C.F.R. § 1.17; particularly, extension of time fees.

Dated: December 6, 2005

Respectfully submitted,

By   
\_\_\_\_\_  
Michael R. Cammarata  
Registration No.: 39,491  
BIRCH, STEWART, KOLASCH & BIRCH, LLP  
8110 Gatehouse Rd  
Suite 100 East  
P.O. Box 747  
Falls Church, Virginia 22040-0747  
(703) 205-8000  
Attorney for Applicant